

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/077949 A1

(51) International Patent Classification⁷: **C07D 471/14**,
471/04, A61K 31/435 // (C07D 471/14, 235:00, 221:00,
221:00) (C07D 471/04, 235:00, 221:00)

(21) International Application Number:
PCT/EP2005/050667

(22) International Filing Date: 16 February 2005 (16.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:	04003467.0	17 February 2004 (17.02.2004)	EP
	04102627.9	9 June 2004 (09.06.2004)	EP
	04106802.4	21 December 2004 (21.12.2004)	EP

(71) Applicant (for all designated States except US): ALTANA PHARMA AG [DE/DE]; Byk-Gulden-Str. 2, 78467 Konstanz (DE).

(72) Inventors (for all designated States except CA, PH, US): BUHR, Wilm; Zum Kirchenwald 7, 78465 Konstanz (DE). ZIMMERMANN, Peter Jan; Zum Lerchental 43/1, 78315 Radolfzell (DE). BREHM, Christof; Richenthalstr. 8, 78462 Konstanz (DE). PALMER, Andreas; Pirminweg 1a, 78467 Konstanz (DE). KROMER, Wolfgang; Hinterhauserstr. 5, 78464 Konstanz (DE). POSTIUS, Stefan; Austrasse 4b, 78467 Konstanz (DE). SIMON, Wolfgang-Alexander; Schubertstrasse 17, 78464 Konstanz (DE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): CHIESA, M. Vittoria [IT/DE]; Alpenstr. 5, 78464 Konstanz (DE).

(74) Agents: WOLF, Ulrich et al.; c/o ALTANA Pharma AG, Byk-Gulden-Str. 2, 78467 Konstanz (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

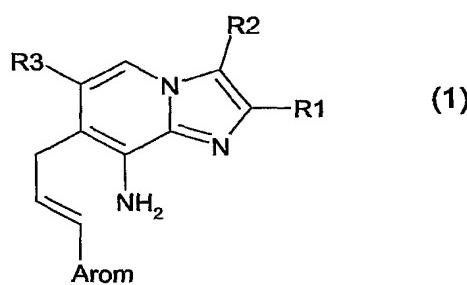
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: TRICYCLIC IMIDAZOPYRIDINES AND INTERMEDIATES FOR THE SYNTHESIS THEREOF



(57) Abstract: The invention relates to compounds of the formula (1), in which the substituents R1, R2, R3 and Arom have the meanings as indicated in the description. The compounds are valuable intermediates for the preparation of pharmaceutical active compounds.

WO 2005/077949 A1